



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	IRS NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	--------------------	---------------------	------------------

10/718,487

11/20/2003

George G. Barclay

51854

8441

7590

06/02/2006

EDWARDS & ANGELL, LLP
P.O. Box 9169
Boston, MA 02209



EXAMINER

SCHILLING, RICHARD L

ART UNIT

PAPER NUMBER

1752

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/718,487

Applicant(s)

BARCLAY ET AL.

Examiner

Richard L. Schilling

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,22-24,52 and 62-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,22-24,52,62-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3-06-06 has been entered.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5, 22-24, 52 and 62-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Brock et al. and Sinta et al. Brock et al. (col. 4, lines 38-51 ; col. 1, lines 31-41; col. 2, lines 46-63) discloses bilayer photoresists with antireflection and etchable organic polymer underlayers and photoresist layers of Si polymers and photoacids. The underlayers are suitable for absorbing deep uv radiation. Sinta et al. (col. 3, line 35-col.4, line67 ; col. 7, lines 5-35; col. 9, lines 3-15) discloses bilayer photoresists with underlayers for absorbing deep uv radiation comprising polymers with aromatic absorbing groups with other polymers with phenol groups as etchable antireflection layers and photoresist layers sensitive to deep uv radiation. It would be obvious to one skilled in the art to use the Si containing polymer containing photoresist layers of Brock et al. as the called for deep uv sensitive

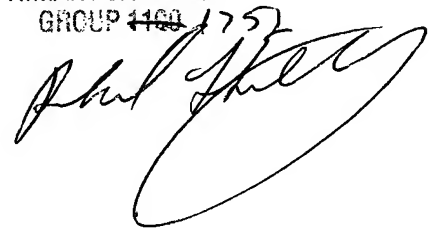
Art Unit: 1752

photoresist top layers in Sinta et al. or to use the underlayers of Sinta et al. as the called for underlayers in Brock et al. as antireflection layers for deep uv radiation.

3. Claim 53 should be indicated as canceled in the next amendment or response.

.Any inquiry concerning this communication should be directed to Richard L. Schilling at telephone number 571-272-1335.

RICHARD L. SCHILLING
PRIMARY EXAMINER
GROUP 4100 1752

A handwritten signature in black ink, appearing to read 'Richard L. Schilling', is written over the printed name and title. The signature is stylized with a large, sweeping loop at the end.

TC1700

REMSEN

Organization

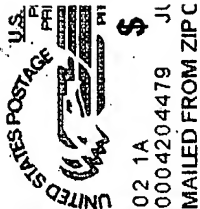
Bldg/Room

United States Patent and Trademark Office

P.O. Box 1450

Alexandria, VA 22313-1450

If Undeliverable Return in Ten Days



AN EQUAL OPPORTUNITY EMPLOYER

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE, \$300

NIXIE

3056 1

08 06/07/06

RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD
RETURN TO SENDER



USPS MAIL CENTER

JUN 12 2006

RECEIVED